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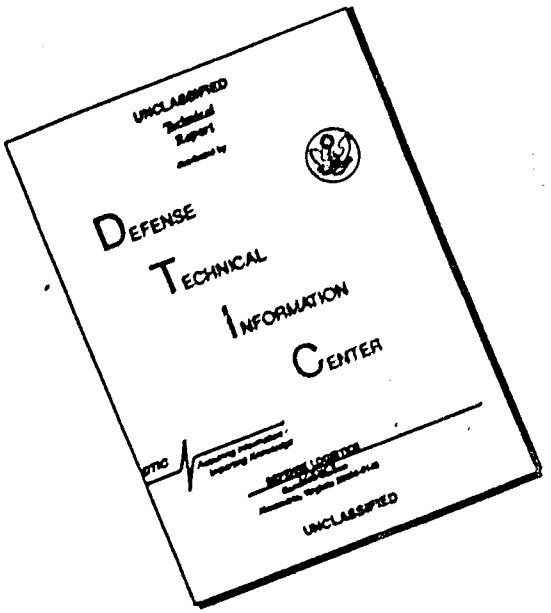

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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

IN REPLY REFER TO

AGDA (M) (1 Oct 69) FOR OT UT 693254 3 October 1969

SUBJECT: Operational Report - Lessons Learned, Headquarters, 34th Engineer Battalion, Period Ending 31 July 1969

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2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

ROBERT E. LYNCH
Colonel, AGC
Acting The Adjutant General

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UNCLASSIFIED REPORT
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(ARMY) ATTN FOR OT UT. WASHINGTON, D.C. 20310

DEPARTMENT OF THE ARMY
HEADQUARTERS, 34TH ENGINEER BATTALION (CONSTRUCTION)
APO San Francisco 96289

EGBA-3 14 August 1969

SUBJECT: Operational Report of Lessons Learned for the 34th Engineer Battalion (Construction) for the Period Ending 31 July 1969, CSFOR-65.

THRU: Commanding Officer
159th Engineer Group
ATTN: EGB-3
APO 96491

Commanding General
20th Engineer Brigade
ATTN: AVBI-OS
APO 96491

Commanding General
US Army Vietnam
ATTN: AVHGC-DST
APO 96375

Commanding General
US Army Pacific
ATTN: GPOP-OP
APO 96588

TO: Assistant Chief of Staff for Force Development
Department of the Army (ACSFOR-DA)
Washington D. C. 20310

Section 1, Significant Organizational Activities.

A. General:

1. During the period 1 May thru 31 July 1969 the 34th Engineer Battalion

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successfully accomplished various engineer construction projects in the III Corps Tactical Zone, Republic of South Vietnam.

The battalion was primarily engaged in construction of lines of communication, operational support missions, MACV Advisor Facilities and base construction. LOC Construction involved upgrading and paving of QL-13 from Phu Cuong to Lai Khe and upgrading of the Lai Khe Bypass. Operational support tasks included construction of MER latrines and showers, observation towers, perimeter bunkers, revetments and replacement of culverts. The battalion was also engaged in the construction of maintenance facilities, of cantonment areas for MACV advisor teams, and in the maintenance and repair of major roads. Horizontal and vertical construction were accomplished by the Battalion at Phu Loi, Di An, Lai Khe, Phu Cuong, Lai Thieu, Ben Cat and Long Binh.

2. The battalion organizational chart is at Inclosure 1.

3. The battalion area of operation and line of communication responsibility (overlay) for the reporting period is at Inclosure 2. The new battalion area of operation and line of communication responsibility (overlay), effective 1 August 1969, is at Inclosure 3.

B. Command: Major personnel changes include the arrival of Major John M. Daniels as Battalion Executive Officer, replacing Major Thomas R Bennett who returned to CONUS. Major Henry C. Watson was assigned as Battalion S-3, replacing Major Peter E. Smith who was reassigned to the 20th Engineer Brigade staff. 1LT John Bermonsolcwas assigned as the Battalion S-4, replacing 1LT Ralph A. Dowell who returned to CONUS. 1LT Ronald Kenney was assigned as Headquarters Company Commander, replacing 1LT Dennis J. Collins who was reassigned as the Engineer Equipment Maintenance Officer. CPT. Kenneth E. Trainham was assigned as B Company Commander, replacing Cpt. Norman A Dobbs who was reassigned to Battalion S-1, replacing 1LT James E Ross who returned to CONUS.

C. Personnel, Administration, and Morale:

1. The average strength for the Battalion for the quarter was 712, which represents 102% of authorized strength. The average officer strength was 40, which represents 103% of authorized strength. There are significant personnel shortages in the MOS's of 31G40, 62N40, and 51H40.

2. Major effort during the period was concentrated on in-processing and out-processing of personnel and updating military personnel records. A total of 130 personnel completed their tour and 214 personnel were in-processed. There were 56 foreign service tour extensions in the Battalion this reporting period.

3. During the period, there were 112 Article 15's, 6 Special Court Martials, and 4 Summary Court Martials. No personnel were processed under AR 635-212.

4. There were no significant medical problems affecting battalion personnel. There were no reported cases of malaria.

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5. There were no Congressional Inquiries this reporting period.

6. There were 111 decorations and awards received by personnel in the battalion during this period. These decorations and awards included 11 Bronze Stars, 21 Army Commendation medals, 7 purple hearts, and 72 20th Engineer Brigade Certificates of Achievement.

7. Morale and Espirit de Corps within the command is excellent.

8. The Battalion currently employs 415 local nationals. These local nationals include those employed with MCA and O&MA funds implementing Programs 5 and 6, to include skilled electricians, plumbers, capenters, masons, and drivers; those employed by AIK funds who are unskilled laborers; and those who are employed with non-appropriated funds as housemaids. These civilian personnel are distributed as follows:

	O&MA	MCA	AIK	Housemaids
Hq Co.	25	4	2	16
A Co.	34	0	1	24
B Co.	28	15	2	21
C Co.	27	43	4	19
D Co.	34	94	1	21
Total	148	156	10	101

Of the 148 local nationals employed thru O&MA funds, 31 are hired against Program 5 authorizations. These personnel are employed as kitchen police and latrine burners. The remaining 117 O&MA employees are hired thru Program 6 authorizations. Program 6 authorizes 306 local nationals to replace the 204 military spaces withdrawn from this command. The most critical shortage of Program 6 employees exists in the Heavy Truck Driver's skill. Of the 130 heavy truck drivers and heavy truck driver leaders authorized, only 6 are currently employed. This shortage exists because local nationals with the required skills are unavailable for hire. A similar shortage exists in the light truck driver skills. The battalion is authorized 43 light truck drivers, but had only 18 employed at the end of this reporting period. There have been no significant problems in the other skill areas.

The shortage of local national truck drivers has caused a drain on the military personnel strength of all units in the battalion, and has had a significant impact on the production capability of the vertical construction platoons. Enlisted carpenters, plumbers and masons have been trained on and assigned to trucks in order to accomplish the battalion's critical LOC mission.

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D. Intelligence, Counterintelligence and Security:

1. Intelligence reports from the Base Defense Officer and other US units located at Phu Loi are received and processed by the Battalion S-2. These reports, along with intelligence documents from the 159th Engineer Group, II FORCEV, and other headquarters, are utilized for determining local security requirements.

2. This headquarters continues to handle personnel security actions, e.g., validation of clearances up to and including TOP SECRET, granting of CONFIDENTIAL clearances, and approval of interim SECRET clearances.

3. The 34th Engineer Battalion has responsibility for the Castle Sector of the Phu Loi Base Camp Perimeter. Castle Sector includes eight (8) defensive bunkers and one (1) guard tower. Operations and communications sections for the Battalion are located within the battalion TOC bunker.

4. This unit provides a 54-man Ready Reaction Force for employment as required by the Base Commander at Phu Loi and a 54-man Ready Reserve Force for employment in the defense sector.

E. Plans, Operations, and Training:

1. During this reporting period the battalion is engaged in preparing plans for the 1970 MCA/LCC Program. This planning includes acquisition of real estate, survey, design and programming of materials, equipment and unit deployments for the upgrade and paving of 39.8 kms of TL 2A/LTL 1A from QL-13 to the north end of Phuoc Vinh Base Camp.

2. Plans and preparations are currently being made to upgrade and asphalt pave the existing Lai Khe Airfield to type III C130 capability.

3. The 34th Engineer Battalion remained heavily committed on construction projects in the RVN. The 34th Engineer Battalion (-) and the Asphalt Platoon of the 103rd Engineer Company remained at Phu Loi during the reporting period. The Earthmoving Platoons of B and D Companies remained at Lai Khe and the Earthmoving Platoon of C Company moved to Lai Khe to facilitate work on QL-13 and the Lai Khe Bypass. The Battalion retained some base construction responsibility at DiAn during the reporting period.

4. The battalion continued to gain valuable experience in both vertical and horizontal construction. During the reporting period 18,044 SF of buildings were completed, 688 CY of concrete were poured, 105,592 CY of laterite and earth fill were hauled, graded and compacted, 2510 LF of culverts were installed, and 46,421 tons of asphalt were placed.

5. The battalion operated a prefabrication facility utilizing local civilian labor at Phu Loi. This facility constructed 3,624 SF of latrines,

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1008 SF of showers, assembled 2510 LF of culvert, and prefabricated various roof trusses and building panels.

6. There were 32.40 inches of rainfall during this reporting period at Phu Loi. Horizontal construction on QL-13 and the Lai Khe Bypass was delayed by 18.5 days during this reporting period due to rain and wet working conditions.

7. A resume of construction projects assigned to the battalion that were completed this period is as follows:

a. OS 243-5508-0-20, Long Binh Tower Erection, D Co: Poured 36 CY of concrete and constructed 1744 LF on 9 wooden guard towers.

b. OS 251-5790-0-20, Tan Uyen Culvert Replacement, C Co: Replaced 60' of 36" culvert which was required due to enemy interdiction.

c. OS 243-5630-0-20, Phu Loi Field Test of Revetment Design, B Co: Field test of a portable revetment proved the design was satisfactory.

d. CD 340-5326-0-20, Lai Khe Latrines and Showers D Co: Constructed 108 SF of latrines and 108 SF of showers.

e. OS 251-5652-0-20, Phu Loi Revetment, B Co: Constructed 200 LF of 8 FT high revetment.

f. OS 217-5805-0-20, Repair of ICS Revetment, Di An, B Co: Repair of revetment by placing knee braces and ½" cables with dead man.

g. CD 17-205-01-T-7S, Water Well Fill Points, Di An, B Co: Constructed steel frame tower (36') with 10,500 gal steel tank. New Project directive issued 19 Jul 69 and currently inactive.

8. A resume of the active construction projects assigned to the Battalion is as follows:

a. OS 251-5730-0-20, Improvement of Perimeter Bunkers, Phu Loi, B and D Co: Replaced bunkers # 76 and 77, replaced barrels and sandbags on bunker # 79, and placed barrels and started framing of bunker # 80. 35% complete.

b. CD 391-5309-0-20, Latrines and Showers, Phu Loi, D Co: Completed 16 - 2 or 4 hole latrines, 25 - 6 or 8 hole latrines, 10 - 2 or 4 head showers, and 14 - 6, 8 or 10 head showers. 50% complete.

c. CD 12-260-01-159, MACV Advisor Facilities, Phu Cuong, D Co: Constructed 11,392 SF of buildings, placed and compacted 716 CY of laterite, placed and finished 186 CY of concrete and 310 LF of culvert. 86% complete.

d. CD 812-0302-0-01, MACV Advisor Facilities, Ben Cat and Lamson, D Co:

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Constructed 1006 SF of building and bunker, placed and compacted 30 CY of laterite, and placed and finished 30 CY of concrete. 87% complete.

e. CD 17-214-03, Aviation Maintenance Facilities, Di An, B Co: Poured 277 CY of cement for a 50' x 50' wash pad and 80' x 144' maintenance hangar. Completed tech supply building and prefabricated roof trusses for maintenance hangar. 47% complete.

f. CD 540-0305-0-01, Road Paving, Lai Khe, B Co and Asphalt Platoon: 1.20 km of roads paved with 540 tons of asphaltic base course and 930 tons of asphaltic surface course. 24% complete.

g. CD 12-231-01-T-7S, Issue of Sand and Gravel and Berm Construction for Vinnell Corporation, Phu Loi, D Co: This battalion is controlling the issue of materials. User is hauling sand and gravel with own equipment. % complete: UNK.

h. CD 98-217-79-LOC, QL-13 Upgrade, 34th Engr Bn: Placed 1200 LF of culvert, poured 40 CY of concrete, hauled, placed and compacted 73,936 CY of laterite and placed 43,710 tons of asphalt. 92% complete.

i. CD 98-201-15-T-MA, LOC Maintenance, 34th Engr Bn: Placed 280 LF of culvert and 1,241 tons of asphalt in repair of roads in the battalion AOR. % complete: N/A

j. CD 440-0301-0-01, Lai Khe Bypass, 34th Engr Bn: Hauled, placed and compacted 30,910 CY of laterite as subbase, placed 690 LF of culvert and poured 40 CY of concrete. 30% complete.

9. At inclosure 4 is a listing of all projects assigned to the battalion which were not worked on this reporting period.

10. New Personnel arriving in-country received formal replacement training. Personnel from the battalion attended replacement training schools conducted at Phu Loi, Di An and Bien Hoa. Orientation classes are also held for new personnel in the companies and at battalion.

11. Command Information topics were conducted weekly by the Company Commanders or their representatives.

12. Character Guidance classes were conducted on a monthly basis by the Battalion Chaplain. Attendance for the battalion averaged 98% of the personnel present for duty for this reporting period.

13. Range firing was conducted monthly throughout the reporting period. Personnel fired their assigned weapons for zeroing and familiarization. Personnel were also given instruction on the safety principles of all organic weapons.

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14. A vigorous safety program remained in effect during the reporting period. Special emphasis was placed on weapons safety, driving safety and precautions to be taken when operating heavy equipment and power equipment and tools.

15. Special Officer and NCO classes were held in preventive maintenance, the dangers of marijuana and military justice. Periodic classes for all personnel were held in anti-sapper training, job site security and safety. Continued emphasis was placed on the training program and the updating of training records.

F. Logistics:

1. Critical shortages of material were: 1 x lumber, 2 x lumber, 4 x 4 lumber, cement, ½" pipe and ½" pipe fitting, all sizes of plywood. 1 x and 2 x lumber and all plywood became USARV command controlled items during the reporting period.

2. At the end of the reporting period, the battalion was short the following major TO&E items: one 40 ton crane, one 60 ton lowbed trailer, one 12½ ton crane, five wood working shop sets, one 600 CFM compressor, one 20 ton truck mounted crane, two 250 CFM compressors, three airmobile vibrating rollers, two 3-wheel 10-ton rollers, two contact maintenance trucks, three airmobile tractors with backhoes, two 5-ton truck tractors, and one earth auger polesetter maintenance truck.

3. The following TO&E items were received this period: one 1,000 gal water distributor, one 10 kw generator set, one road grader, two 2½ CY scoop loaders, one rotary tiller mixer, two 250 CFM compressors, one 10-ton roller, two 3/4-ton cargo trucks, eleven 5 ton dump trucks, and two 10,000 lb forklift trucks. During the reporting period MCA-LOC Equipment received consisted of one hydraulic excavator and one asphalt paver.

4. Combat losses during the reporting period were one each 25-ton semi-trailer lowbed.

5. Command emphasis has continued in the area of supply accountability and reports of survey. During the period eight reports of surveys were initiated.

6. The battalion average deadline rate at the end of this reporting period was 11.1% which is an increase of 2.7% over the previous reporting period. This increase is due to the heavy use of equipment and vehicles in construction of QL-13 and the Lai Khe Bypass.

7. PLL items on hand are at 56% fill and ASL line items are at 41% fill. Fill on Red Ball requisitions over the last 90-day period are as follows:

a. 60 - 90 days: 64%

b. 30 - 60 days: 42%

c. 0 - 30 days: 8%

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G. Command Management:

1. The projects and missions assigned to the battalion are managed by the Battalion Operations Officer. Daily operations meetings are held at battalion and company levels to coordinate equipment and projects, to survey requirements, to assess and reevaluate priorities and to resolve problem areas. Command and staff meetings are held twice a week to review battalion progress, to disseminate command guidance and policy, to exchange information, and to discuss future operations.

2. Upon receipt of a project directive, a battalion directive is assigned to a company for execution. The S-3 section provides the design and specifications, if not provided by higher headquarters, to accompany the battalion directives. The company is then responsible for submitting a complete Bill of Materials (BOM), construction plan, construction schedule, drainage plan (if applicable), and safety plan to the S-3 for approval. Construction inspectors within the S-3 section check for quality control and resolve problems that may arise. In specified cases, close coordination with base development boards is maintained, as required.

H. Inspector General: Five informal IG complaints were received during this reporting period.

I. Information: The 34th Engineer Battalion receives the following newspapers: The Army Reporter, The Castle Courier, and The Pioneer. The Pacific Stars and Stripes is distributed daily throughout the 34th Engineer Battalion. The battalion receives the following magazines: Army, Commander's Digest, The Army Digest, Aviation Digest, and Research and Development. Home town news releases and unit news stories are submitted through the 34th Engineer Battalion on a weekly basis.

J. Civic Affairs:

1. During the reporting period, the battalion continued to support the Phu Cuong Hospital through the MEDCAP Program. Heavy project commitments of the units of the 34th Engineer Battalion have precluded extensive expenditure of effort for civic action construction.

2. The battalion chaplain continued to make periodic visits to the local Vietnamese schools, churches and orphanages during the reporting period. This activity has greatly aided US - VN relations.

SECTION II, Lessons Learned: Commander's Observations, Evaluations, and Recommendations:

A. Personnel: None

B. Operations:

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1. Asphalt Patching by Lamination:

a. Observation: Normal patching techniques over dips caused by settlement in asphaltic pavement have proven unsatisfactory.

b. Evaluation: Special precautious must be taken when repairing dips in asphalt paved highways over culvert sites.

c. Recommendation: The technique applied was lamination of asphalt patches one on top of the preceding until the proper height was obtained. After the area to be patched has been properly cleaned and tack coated, a lift of asphalt, not greater than 3 inches in depth (uncompacted) is applied and compacted. Each uncompacted lift should be placed with a uniform crown in the center across the entire width of the dip. On top of this lift another similar lift is applied in the same manner, insuring that each succeeding lift is extended beyond the ends of the preceding lift. (see sketch, page 10). When pressure is applied by equipment and vehicles it is evenly distributed over the entire patch and consequently does not tend to displace the patch.

2. Protection of Culvert Sites

a. Observation: When installing multiple culverts, it often happens that the site cannot be properly backfilled before the end of the working day. This leaves the laterite already placed between the culverts exposed to the elements.

b. Evaluation: A means was needed whereby the laterite placed was protected from washout due to a heavy rain during the night.

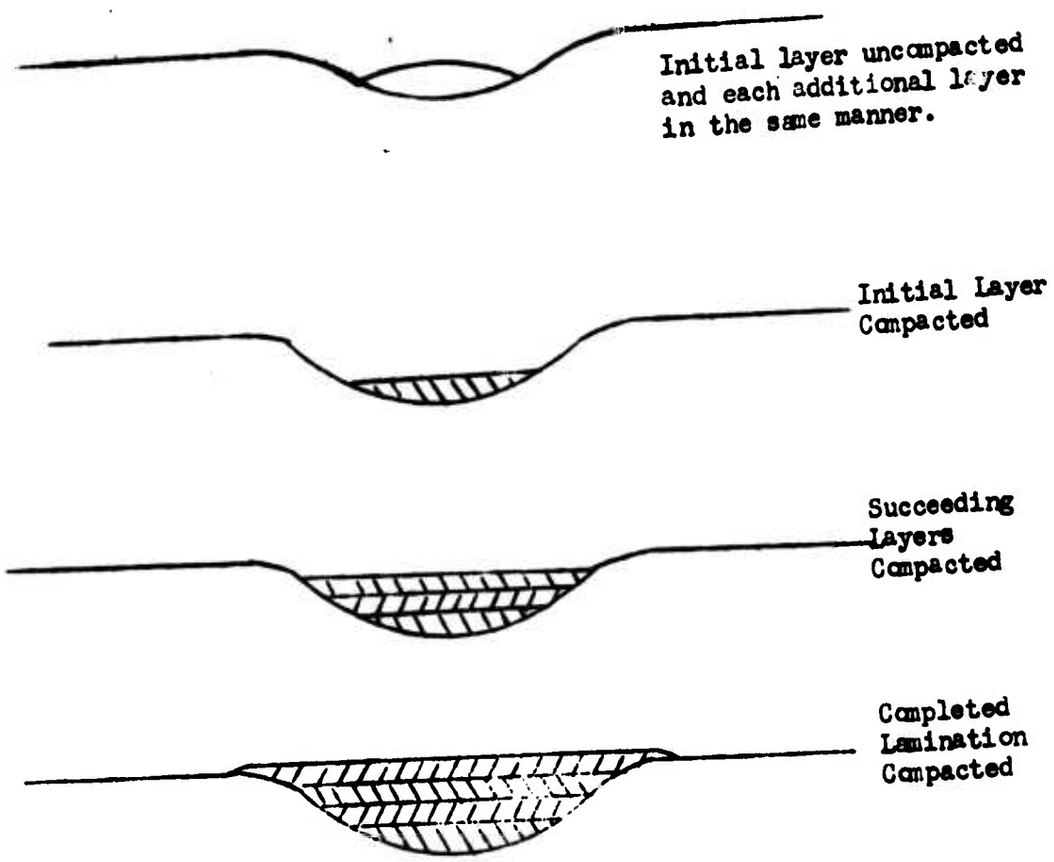
c. Recommendation: When the culverts are placed and properly aligned, a headwall made from sandbags should be constructed on the upstream side. Once the temporary headwall is constructed, laterite is backfilled and compacted at least ten (10) feet downstream from the headwall for stablization. Experience has shown that this method will provide adequate protection for any additional fill placed.

3. Revetment Rain Caps:

a. Observation: Rain caps for field revetments have been constructed from mortar or sandbags and roofing felt. These rain caps have proven unsatisfactory.

b. Evaluation: Due to settlement of the fill in the revetment, the mortar caps crack and the sandbags separate causing the cap to lose its watertight characteristic.

c. Recommendation: All rain caps should be constructed from corrugated sheet metal. The corrugated sheets are placed on top of the revetment such that



PATCHING BY LAMINATION

the long axis of the sheet metal is parallel with the sides of the revetment. The corrugated metal sheets should be overlapped and fastened to the sides of the revetment. A two by four placed down the center of the revetment top under the metal cover will give the sheet metal adequate slope to drain all water from the cap. (see sketch page 12).

4. Substitution for a Septic Tank

a. Observation: Under a construction directive for a recent MACV project the scope of work included a septic tank design for construction and installation.

b. Evaluation: The proposed septic tank was to be constructed out of concrete which entailed the placing and bracing of forms, wiring of rebar and pouring of a concrete slab to place as a lid.

c. Recommendation: That 2 salvaged CONEX containers be utilized as the basic septic tank. Baffles may be easily welded into place, and the actual tank may be placed with a great deal of saving in time and labor. Concrete was poured around the CONEX, utilizing the surrounding earth as a form. The inside of the CONEX was painted with a preservative to prevent rusting out.
NOTE: This design has been approved by the Long Binh Sanitation Engineer.

5. Spoils from Well Drilling Operation

a. Observation: Drilling a well on a prepared project site can present a problem in drainage.

b. Evaluation: The process for drilling a water well necessitates the dumping of excess spoil in the immediate vicinity of the well site. This spoil is usually fluid in character. Unless there is a natural slope in excess of 5% it will not flow. When buildings are in the line of flow they naturally prevent drainage. If this spoil is allowed to stand for a few days it decreases the compaction of the soil beneath.

c. Recommendation: Lay ½, 18" culvert from the well site to an area suitable for drainage of the spoil. Crib the culvert on the end nearest the well drilling rig to supply slope as necessary. If this is not possible or feasible use one man with a hoe to supplement the flow.

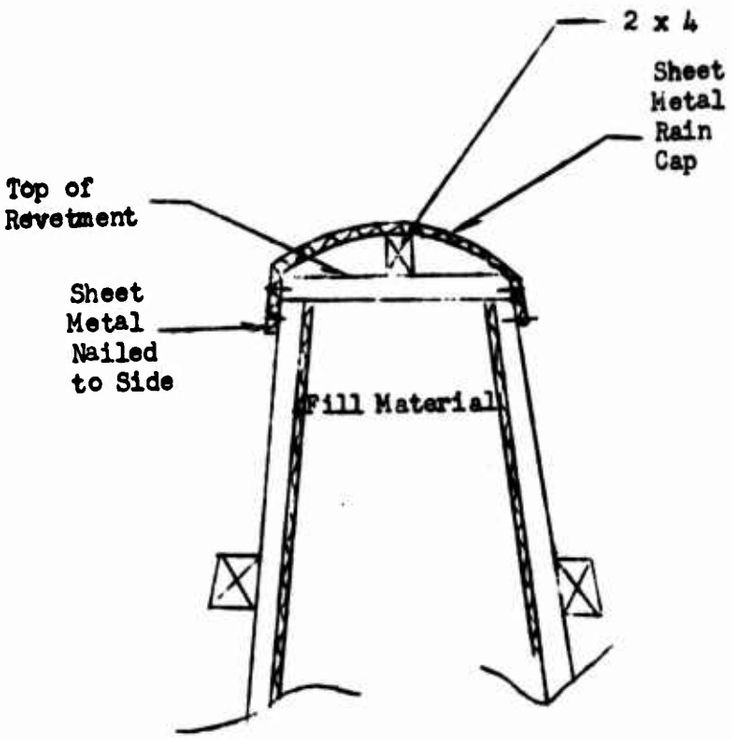
C. Training: None

D. Intelligence: None

E. Logistics:

1. Trailer for LOC rotary sweeper

REVETMENT RAIN CAPS



END VIEW

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a. Observation: The LOC rotary sweeper is not designed to be roaded for long distances or at high speeds.

b. Evaluation: Due to lack of a suspension on the LOC rotary sweeper and the small road clearances of many of its components it is not wise to tow it over unimproved roads or at high speeds. Therefore, it is necessary to load it on a trailer for travel for distances in excess of 1 mile. The most often used trailer is the critical 25 ton lowbed. This transportation is inefficient since the sweeper is relatively light and does not require such a large trailer.

c. Recommendation: It was found that the trailer lowbed 8 ton with 4 dual wheels suitably meets the requirement. With a few simple modifications the whole operation of loading and off loading can be accomplished by one person. Modifications are as follows: First, 3 loading ramps must be constructed out of light weight channel iron. Their size should be approximately one foot wide and 6 feet long with a cleat welded to one end so as to link with the ramp cleats on the back of the trailer. Each ramp can easily be handled by one man. Secondly, 2 wheel covers must be made to cover the wells located over the trailer wheels in the deck. Materials used here can be ¼" plate steel custom fitted. Thirdly, a winch mount must be placed on the goose neck of the trailer and a hand winch attached. A recommended winch is one commonly found in the aviation maintenance units used to lift helicopter engines and components. This winch easily loads and off loads the sweeper and can be operated by one man. Custom binding devices can be installed to hold the sweeper in place such as wheel wells for the sweeper wheels to use as a track. Once the trailer is modified it is possible for one man to load the sweeper, hook up the prime mover, road to the job site, unhook the prime mover, unload the sweeper, and perform the sweeping mission. (see sketch page 14).

F. Organization:

1. Asphalt Plant Management and Control

a. Observation: Efficient management and control of an asphalt plant operation is difficult when the unit operating the plant is not attached or under the operational control of the command assigned the mission for the overall scope of the project.

b. Evaluation: A unit with a major LOC mission requiring extensive asphaltic paving encounters many contingencies which alter their day to day requirements for asphalt. Some of these contingencies are weather, adequate surface preparation, dump truck availability and rock haul capability. These factors have a direct bearing on the efficiency of the Asphalt Plant Operations. Similarly, when the asphalt plant breaks down or requires scheduled maintenance, the using unit's effort is crippled for lack of asphalt mix. It is also important to note that an asphalt plant operation requires considerable support for hauling and de-drumming of asphalt, rock hauling, supply of diesel fuel,

827

4'-1"
3'-8"
3'-3"
3'-0"
8 TON LOW BED
SCALE: 1/4" = 1'-0"
1" SQ BAR
TOP VIEW
SCALE 1/4" = 1'-0"
1'-8"
1'-10"
3'-0"
1/4" MTL PL
1" SQ BARS 1'-0" LONG
RAMP DETAIL
RAMP 6'-0" LG
LIGHT WEIGHT
CHANNEL IRON

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effective maintenance assistance, trainees for back-up operators, and quality control of their product. The asphalt platoon is not capable of providing their own support in these areas.

c. Recommendation: That the asphalt platoon and plant be attached to the using unit whenever feasible. This would permit careful planning and close coordination of the two efforts, lending flexibility and efficiency to the entire operation. With both units under the same commander plant maintenance, rock haul, and de-drumming activities can be accomplished whenever the unit is delayed because of dump truck availability, lack of surface preparation, etc. Should the plant break down, this organization facilitates the rapid conversion of the using unit's resources to other productive effort. The using unit can also provide reinforcement in personnel, maintenance and logistical support required to maximize plant production and plant availability.

WM. N. MILLWARD JR.
LTC, CE
Commanding

4 Incls
~~1. Organizational Chart~~
~~2. Overlay of Area of Operation and LOC Responsibility~~
~~3. Overlay of Area of Operation and LOC Responsibility, eff 1 Aug 69.~~
~~4. Inactive Projects.~~
Incl 1 - 4 wd Hq, DA

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CO, 34th Engineer Battalion

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EGB-3 (14 Aug 69) 1st Ind
SUBJECT: Operational Report of Lessons Learned for the 34th Engineer Battalion (Construction) for the Period Ending 31 July 1969, CSFOR-65

HA, HQ, 159th Engineer Group, APO 96491 22 August 1969

TO: Commanding General, 20th Engineer Brigade, ATTN: AVBI-OS, APO 96491

1. Submitted IAW USARV Reg 525-15, dated 13 April 1969 is the Operational Report Lessons Learned for the 34th Engineer Battalion.

2. Reference: Section 2, paragraph f. The advantages of attaching the asphalt platoon to the using unit were recognized at an early date. The proposed step was taken at that time.

3. Subject report for the 34th Engineer Battalion has been reviewed and is considered adequate.

JAMES B. DEVINE
COL, CE
Commanding

CF:
CO, 34th Engr Bn

AVBI-OS (14 Aug 69) 2nd Ind
SUBJECT: Operational Report of the 34th Engineer Battalion (Construction) for the Period Ending 31 July 1969, RCS CSFOR-65(R1)

DA, HEADQUARTERS, 20TH ENGINEER BRIGADE, APO 96491 26 AUG 1969

TO: Commanding General, United States Army Vietnam,
ATTN: AVHGC-DST, APO 96375

1. Submitted in accordance with USARV Regulation 525-15, dated 13 April 1968.

2. Subject report for the 34th Engineer Battalion (Construction) has been reviewed and is considered adequate.

FOR THE COMMANDER:

for J. B. KENNEDY
Major, AGC
Adjutant

Copies Furnished:
CO, 159th Engr Gp
CO, 34th Engr Bn

AVHDC-DST (14 Aug 69) 3d Ind
SUBJECT: Operational Report of Lessons Learned for the 34th Engineer Battalion(Construction) for the Period Ending 31 July 1969, CSFOR-65

HEADQUARTERS, UNITED STATES ARMY, VIETNAM, APO San Francisco 96375 1 0

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-DT, APO 96558

1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 31 July 1969 from Headquarters, 34th Engineer Battalion (Construction).

2. Comments follow:

a. Reference item concerning "Revetment Rain Caps", Section II, page 9, paragraph B3; concur. A weatherproof cap is desirable and the method of fabrication described is widely practiced. Users should be cautioned that the weather cap will conceal settlement of the revetment fill and the revetments will require additional fill to be fully effective.

b. Reference item concerning "Substitution for a Septic Tank", Section II, page 11, paragraph B4; concur. The use of salvaged CONEX containers as septic tanks has a limited application. Units are advised that the use of CONEX containers must be strictly controlled. CONEX containers will be declared salvage in accordance with provisions of USARV Regulation 55-7.

c. Reference items concerning "Trailer for LOC rotary sweeper", Section II, page 11, paragraph E1; concur. The unit is advised that modifications will not permanently alter the configuration of the trailer. Authorization for the Trailer, Lowbed, 8 ton, LIN W97455 is found only in TOE 5-500 (CE), Well Drilling Detachment.

FOR THE COMMANDER:

B. A. Goodwin

B. A. GOODWIN
CPT, AGC
Assistant Adjutant General

Cy furn:
34th Engr Bn
20th Engr Bde

GPOP-DT (14 Aug 69) 4th Ind
SUBJECT: Operational Report og HQ, 34th Engineer Battalion (Const) for Period Ending 31 July 1969, RCS CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 18 SEP 69

TO: Assistant Chief of Staff for Force Development, Department of the Army, Washington, D. C. 20310

This headquarters concurs in subject report as indorsed.

FOR THE COMMANDER IN CHIEF:

C. L. SHORTT
CPT, AGC
Asst AG